

REMARKS

This responds to the Office Action mailed on June 12, 2003, which rejects all of the pending claims (i.e., claims 1-43). Reconsideration in view of the following remarks is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103CLAIMS 1-13

Paragraph 7 of the Office Action rejects claim 1 under 35 U.S.C. §103(a) as being unpatentable over DeSimone et al., U.S. Patent No. 5,787,470 (hereinafter DeSimone) in view of Armbruster et al., U.S. Patent No. 6,243,760 (hereinafter Armbruster). The Office Action states that

DeSimone et al. (USPN 5,787,470) teach a system for caching internet information to increase web performance . . . [but] it fails to disclose means for . . . distributing the information to a set of geographically distributed cache servers.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by DeSimone et al. (USPN 5,787,470), as evidenced by Armbruster et al. (USPN 6,243,760). . . [,which] discloses a system for improving web performance with means for . . . distributing the information to a set of geographically distributed cache servers. . .

Given the teaching of Armbruster et al. (USPN 6,243,760), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying DeSimone et al. (USPN 5,787,470) by

employing the distribution of data to geographically separate cache servers. Geographically distributing data allows for the least amount of physical distance between the end user and the cache thus benefiting the system by reducing retrieval time.

(Office Action Paragraph 7)

Applicant respectfully traverses the rejection of claim 1 on the grounds that the proposed combination of DeSimone and Armbruster is improper.

First, the Office Action has not presented legally sufficient evidence to support the motivation proposed by the Office Action to combine the references. The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness, including suggestion or motivation to combine the references (MPEP 2142). In order to try to satisfy this burden, the Office Action merely states that:

a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying DeSimone et al. (USPN 5,787,470) by employing the distribution of data to geographically separate cache servers. Geographically distributing data allows for the least amount of physical distance between the end user and the cache thus benefiting the system by reducing retrieval time”.

(Office Action page 4, lines 10-14)

However, this is merely a bold assertion, without any evidence in support thereof. That is, the Office Action identifies no evidence to support the assertion that modifying DeSimone as proposed would provide a benefit in the system of DeSimone or that one having ordinary skill in the art would have readily recognized such a benefit. To the contrary, the Office Action simply assumes that this would be the case.

Without evidence in support thereof, the Office Action has not met the basic requirements of a *prima facie* case as set forth in MPEP 2143, and therefore, the

combination is improper. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (MPEP 2143.01 citing *In re Mills*). There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings (MPEP 2143). The Office Action has instead used impermissible hindsight reconstruction. Indeed, it is only Applicant's application which suggests the desirability of the subject matter recited in the claims. Consequently, the Office Action has not met the basic requirements of a *prima facie* case as set forth in MPEP 2143, and the combination is therefore improper.

Notwithstanding the above, and as described below, the proposed combination is also improper for failing to meet the requirements of MPEP 2141.02, which states that the prior art must be considered in its entirety, including disclosures that would lead away from the claimed invention. Nor does the proposed combination meet the requirements of 2143.01, which states that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

DeSimone is directed to DeSimone discloses that caches may have different objects stored thereon that might at some time be requested by a client connected to a cache other than the cache on which the object is stored (abstract, lines 3-6). If caches communicate with each other, the objects stored in one cache could be used to serve clients attached to another cache (col. 1, lines 58-61). Thus, for example, a cache receiving a request for an object may explicitly query other caches at the time when the request for a particular object is made (col. 1, lines 62-66). However determining if an object is on a neighboring cache can impart an unacceptable delay to the user (col. 2, lines 4-10). Furthermore, the flooding of requests to all neighboring caches in response to each request for an object can be wasteful of network bandwidth as well as draining of the caches computing resources (col. 2, lines 10-13). Moreover, a copy of an object as it exists on a neighboring cache may differ from the object as it then exists in the server from which it originated, and thus may not be suitable to be supplied to a client requesting that object.

To overcome the above drawbacks, DeSimone et al. discloses a protocol in which information about the contents of the neighbor caches is exchanged between caches so that when a request for an object is received, the object can be retrieved from the cache in which it is stored (abstract, lines 10-13). This is done asynchronously with respect to user requests so that caches know ahead of time what other caches carry. The delay perceived by the user is therefore reduced (col. 4, lines 59-60).

DeSimone emphasizes that the protocol by which caches update each other about what objects are in their cache is different from actually sending the objects themselves (col. 3, lines 19-23). Indeed DeSimone specifically teaches away from distributing objects themselves:

[t]he motivation of the present invention for simply sending notification messages instead of the Web objects themselves is twofold. Firstly, it enables a sense of cache coherency even if the RQC may not have space left on its system to copy the Web object itself. Since this is done asynchronous to user requests, and not as a consequence to a request, caches know ahead of time what other caches carry, and therefore can save delay as perceived by the user (by preventing fruitless queries to neighbor caches), as well as network and cache resources. Secondly, the invention permits a logical separation between information regarding the modification time of an object, and the content of the object itself. A cache can therefore choose what objects it would like to refresh or cache, before it downloads them. Since the information carried can include other aspects of the object, such as the size in bytes, the cache is better prepared before downloading the object. For example, the size of a particular object may be very large and the cache may choose not to download it due to insufficient storage capacity.

(DeSimone, col. 4, line 53-col. 5, line 4) (emphasis added)

Armbruster discloses a system that includes a content provider 12, a central cache complex 1, local caches, e.g., local cache 10, and routers, e.g., router 17 (col. 3, line 47-col. 4, line 10). The content provider 12 determines what files are to be cached (col. 4, lines 39-40) and thereafter uploads such files to the central complex 1 (col. 4, line 65). A daemon associated with the uplink 5 is alerted that files have been sent and broadcasts them to the local caches (e.g., local cache 10) via a satellite transponder 6 (col. 5, lines 3-

5). The content provider decides where the files are distributed (col. 5, lines 6-7). Software is provided to enable the local cache to save or discard the incoming material, after reception (col. 5, lines 22-23).

As stated above, the combination proposed by the Office Action does not meet the requirements of MPEP 2141.02, which states that the prior art must be considered in its entirety, including disclosures that would lead away from the claimed invention. As stated above, DeSimone emphasizes that the protocol by which caches update each other about what objects are in their cache is different from actually sending the objects themselves (col. 3, lines 19-23). Moreover, DeSimone explicitly teaches away from distributing objects themselves:

[t]he motivation of the present invention for simply sending notification messages instead of the Web objects themselves is twofold. Firstly, it enables a sense of cache coherency even if the RQC may not have space left on its system to copy the Web object itself. Since this is done asynchronous to user requests, and not as a consequence to a request, caches know ahead of time what other caches carry, and therefore can save delay as perceived by the user (by preventing fruitless queries to neighbor caches), as well as network and cache resources. Secondly, the invention permits a logical separation between information regarding the modification time of an object, and the content of the object itself. A cache can therefore choose what objects it would like to refresh or cache, before it downloads them. Since the information carried can include other aspects of the object, such as the size in bytes, the cache is better prepared before downloading the object. For example, the size of a particular object may be very large and the cache may choose not to download it due to insufficient storage capacity.

(DeSimone, col. 4, line 53-col. 5, line 4) (emphasis added)

Thus, DeSimone clearly teaches away from distributing information as in Armbruster. Consequently, the proposed combination fails to meet the requirements of MPEP 2141.02, which states that the prior art must be considered in its entirety, including disclosures that would lead away from the claimed invention.

Nor does the combination proposed by the Office Action meet the requirements of MPEP 2141.01, which states that the proposed modification cannot render the prior art unsatisfactory for its intended purpose. DeSimone explicitely states that the system allows a cache to choose what objects it would like to refresh or cache, before it downloads them (col. 4, lines 65-66). In contrast thereto, Armbruster does not allow the receiving caches to decide whether to save or discard a file until after reception of the file (col. 5, lines 22-24). Modifying the system of DeSimone to distribute information as in Armbruster would thus leave the system without the ability to allow a cache to choose what objects it would like to refresh or cache, before it downloads them, thereby leaving the system unsatisfactory for its intended purpose. The proposed combination therefore flatly ignores an intended purposes of the system of DeSimone and fails to meet the requirements of MPEP 2141.01, which states that the proposed modification cannot render the prior art unsatisfactory for its intended purpose. One of ordinary skill in the art would not modify DeSimone to distribute information as taught in Armbruster if the modification would leave the system unsatisfactory for its intended purpose.

Applicant has thus presented clear evidence that the references in fact teach away from the proposed combination and that the proposed combination would leave the system unsatisfactory for its intended purpose. Consequently, the Office Action has not met the requirements of a *prima facie* case as set forth in MPEP 2143 and the combination is therefore improper.

Accordingly, reconsideration of the rejection of claim 1 is respectfully requested.

Claims 2-13 depend from claim 1. For at least the reasons set forth above, reconsideration of the rejection of claims 2-13 is respectfully requested.

#### CLAIMS 14-26

Paragraph 20 of the Office Action rejects claim 14 under 35 U.S.C. §103(a) as being unpatentable over DeSimone in view of Armbruster.

As stated above, the proposed combination of DeSimone and Armbruster is improper.

Accordingly, reconsideration of the rejection of claim 14 is respectfully requested.

Claims 15-26 depend from claim 14. For at least the reasons set forth above, reconsideration of the rejection of claims 15-26 is respectfully requested.

### **CLAIMS 27-34**

Paragraph 33 of the Office Action rejects claim 27 under 35 U.S.C. §103(a) as being unpatentable over DeSimone in view of Armbruster.

As stated above, the proposed combination of DeSimone and Armbruster is improper.

Accordingly, reconsideration of the rejection of claim 27 is respectfully requested.

Claims 28-34 depend from claim 27. For at least the reasons set forth above, reconsideration of the rejection of claims 28-34 is respectfully requested.

### **CLAIMS 35-42**

Paragraph 41 of the Office Action rejects claim 35 under 35 U.S.C. §103(a) as being unpatentable over DeSimone in view of Armbruster.

As stated above, the proposed combination of DeSimone and Armbruster is improper.

Accordingly, reconsideration of the rejection of claim 35 is respectfully requested.

Claims 36-42 depend from claim 35. For at least the reasons set forth above, reconsideration of the rejection of claims 36-42 is respectfully requested.

**CLAIM 43**

Paragraph 49 of the Office Action rejects claim 43 under 35 U.S.C. §103(a) as being unpatentable over DeSimone in view of Armbruster.

As stated above, the proposed combination of DeSimone and Armbruster is improper.

Accordingly, reconsideration of the rejection of claim 43 is respectfully requested.

**CONCLUSION**

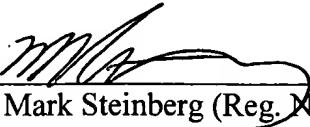
In view of the foregoing remarks, reconsideration is respectfully requested.

Because the reasons above are sufficient to traverse the rejections, Applicant has not presented other possible reasons for traversing such rejections. For example, additional reasons for traversing the rejections were presented in the prior response. Nonetheless, Applicants expressly reserve the right to do so, if appropriate, in response to any future Office Actions.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-1402.

Respectfully submitted,

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